Comments of the Natural Resource Defense Council to the Louisiana Department of Environmental Quality

Clean Power Plan Listening Session

31 March 2016

Thank you for accepting these comments on the opportunity for Louisiana to prepare and submit a smart State Plan as required by the Clean Power Plan –the regulations implemented by the EPA under the Clean Air Act. We commend the DEQ for holding this listening session and appreciate the invitation to participate.

I submit these comments on behalf of the Natural Resources Defense Council (NRDC). NRDC is a non-profit environmental organization representing 1.4 million members. NRDC uses law, science, community planning and the support of its members to ensure a safe and healthy environment for all living things. One of NRDC's top priorities is to reduce emissions of the air pollutants that are causing climate change.

CPP is an Opportunity for Louisiana

This listening session is a great start for Louisiana Dept. of Environmental Quality. We strongly encourage you to continue the conversation with all stakeholders beyond this session. We are confident that through these conversations you will find that Louisiana has an opportunity to gain in many ways by pursuing a state plan to reduce carbon emissions from power pants. Doing so will deliver value to the people of this state and cost less than if we continue on a "business as usual" pathway.

The CPP gives Louisiana substantial flexibility to implement a state plan to reduce emissions, including cooperating with other states on allowance trading regimes. We strongly encourage DEQ, the PSC, and all stakeholders to work to explore alternatives and possibilities –this work will deliver benefits to us all in the form of a better state plan.

A state plan will push power generators toward finding the lowest-cost mix of resources. Participating in a system with other states to trade allowances will further push utilities and others to invest in the lowest-cost mix of supply to meet our power needs.

In some cases this will mean running high-efficiency gas plants for longer periods, while ramping down the costliest (and dirtiest) coal plants. In some cases, it will mean utilities operating low-cost energy efficiency programs (such as weatherizing homes, or offering incentives for high efficiency equipment), instead of building a new power plant to provide peak power for a few hours each summer day.

Efficiency turns out to be cheaper in many instances than generating power in other ways. Along the way it improves housing for Louisiana's families. Louisiana should take advantage of demand-side energy efficiency as a compliance strategy to the greatest extent possible. As the Department knows, Louisiana's state plan must be developed in dialogue with other agencies such as the Public Service

Commission, which has primary authority over how many Liouisiana utilities plan to acquire power resources to meet demand and growth.

Stakeholder engagement will show the CPP gives Louisiana flexibility to implement standards in a way tailored to our state and in a way that ensures reliability of the electricity system.

We strongly encourage you to give particular attention to the values available to low and moderate income Louisiana families. The families bear a disproportionate burden from harmful pollution, are overburdened by home energy prices and these families could benefit greatly from the kinds of programs encouraged by the CPP.

Reducing emissions of other pollutants that harm health of our kids and families (like carbon monoxide and sulfur dioxide, particulates), and in the process reducing asthma attacks and other respiratory illnesses and saving lives.

Our analysis suggest Louisiana could be poised to capture substantial value from allowances in a mass-based system. Allowances can be sold to others (in Louisiana and in other states depending on how DEQ implements). It raises a question about how allowances are allocated. We encourage DEQ to assure that an allowance system does not reward generators for polluting. Benefits from any allowance system must flow to all Louisiana citizens, encourage development of clean energy, and protect low-income communities. In other states, we have seen evidence that an auction system can be the simplest, least costly, and most efficient way of distributing allowances.

Specifically, we urge the Department of Environmental Quality (DEQ) to:

1. Commit to implementing the Clean Energy Incentive Program; and
2. Focus incentives on the hard-to-reach low income housing sector
3. Capture the full value of carbon allowances for public benefit

Introduction to CEIP

The following portion of our comments describe the Environmental Protection Agency's (EPA) proposed Clean Energy Incentive Program (CEIP), which states may use to gain extra value from early investments in wind and solar power generation and demand-side energy efficiency measures (EE) in low-income communities. These comments focus on the CEIP's provisions for delivery of energy-efficiency to low-income communities. Reducing barriers to EE in low income communities will help ensure that the benefits of the Clean Power Plan are shared broadly across society.

Home energy expenses are a significant and growing component of low-income household budgets. Households that earn less than the national median income spend 17 percent of their budget on energy

costs[1]. Nominal spending by renters on home energy increased by 53 percent from 2000 to 2010, compared to a 22 percent increase in spending on all other types of goods and services[2].

In Louisiana these issues are particularly acute. Home energy expenses are often a crippling financial burden for low income Louisiana households. Louisiana households with incomes of below 50% of the Federal Poverty Level pay, on average, 26% of their annual income simply for their home energy bills[3]. This amounts to more than 145,000 Louisiana households who live with income at or below 50% of the Federal Poverty Level and face a home energy burden of 26%[4]. Additionally, more than 183,000 Louisiana households live with incomes between 50% and 100% of the Federal Poverty Level and face a home energy burden of 14%[5].

Given these realities, there is a large opportunity in Louisiana to improve energy efficiency in homes and buildings, which can deliver added benefits when implemented where low income people live. This opportunity has historically been under-served. By providing an added incentive for energy efficiency projects in the homes and buildings where low-income people live, the CEIP can help address this problem. Louisiana also gains additional value by improving these structures for future residents.

Benefits for low income utility customers

Recent research by Synapse, Inc. compared costs associated with state implementation plans that maximize available energy efficiency strategies (called the "Synapse-CPP" scenario) to a future in which states are not implementing the Clean Power Plan ("No CPP"). They found that households in states that fail to implement the Clean Power Plan should expect higher electric bills (about $17 per month higher in 2030) than households in states that do implement the Clean Power Plan[6].

Additionally, the Synapse study found that states with higher than average poverty rates, coupled with the lack of existing Energy Efficiency Resource Standards (EERS) would see the highest gains in bill savings from implementing the Clean Power Plan and incentivizing efficiency in low income housing[7]. The study expects Louisiana to achieve bill savings of approximately $17 per month on average for consumers by investing in energy efficiency. The correlation between high rates of poverty and inefficient housing combined with the lack of any preexisting statewide EERS to establish an efficiency market leaves a great deal of untapped savings in Louisiana's low income housing stock.

By focusing on energy efficiency in low income housing, Louisiana can reach compliance at a lower cost, while providing real benefits to consumers and the local economy. Investing in energy efficiency reduces demand; saves utilities and customers the cost of having to build new generation capacity to cover that demand. It is the construction of new generating units and the passing on of that cost to customers that threaten energy affordability for low income and elderly households the most[8]. The CPP is an opportunity to make smart decisions about our energy future, to benefit consumers, our public health and environment.

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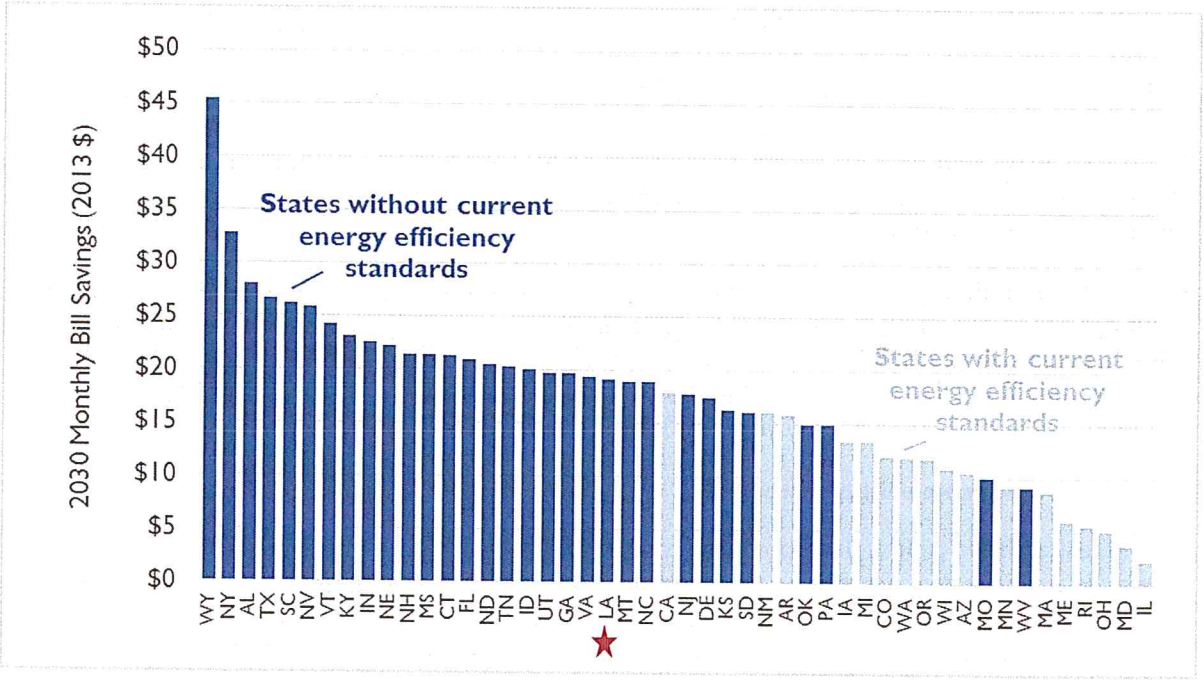
[1] Gary Pivo, *Unequal access to energy efficiency in US multifamily rental housing: opportunities to improve* (Building Research and Information, 2014), 42:5, pp. 551-573.
[2] ibid
[3] http://www.homeenergyaffordabilitygap.com/03a_affordabilityData.html
[4] ibid
[5] Ibid
[6] http://www.synapse-energy.com/sites/default/files/cutting-electric-bills-cpp-march2016.pdf
[7] Ibid
[8] http://theadvocate.com/news/11133600-123/la-needs-more-electricity-but

2030 residential monthly bills savings from Clean Power Plan compliance (Synapse-CPP versus No CPP); states with energy efficiency standards currently in place highlighted[9]



Louisiana DEQ should commit to implementing the Clean Energy Incentive Program (CEIP)

To ensure these bill reductions reach low income communities and to reduce the overall cost of achieving the emission performance rates or state goals, LA DEQ should state early its commitment to implementing the Clean Energy Incentive Program (CEIP). Energy efficiency is the cheapest way to reduce carbon emissions.

The CEIP is a "matching program," whereby the participating states provide early-action credits for eligible projects and the EPA matches those credits from a federal pool of credits. **For every two MWHs of verified savings, an eligible EE project will earn four early-action credits – two from the state and two from EPA.**

Participation in the CEIP is optional and states must declare their intention with respect to CEIP participation. Declaring early is in the best interest of the state because it provides a signal to energy efficiency providers and property owners to prepare projects for eligibility and verification.

EE Project Eligibility: projects are eligible for credit under the CEIP if they:

- Are located in or benefit the state that submitted the final plan;
- Commence operation after the submission of final state plan; and
- Result in quantified and verified electricity savings (MWh) through demand-side EE **implemented in low-income communities** and save electricity in 2020 and 2021[10].

[9] http://www.synapse-energy.com/sites/default/files/cutting-electric-bills-cpp-march2016.pdf

While the EPA is still finalizing the specific procedures and rules of the CEIP, the final CPP and the proposed federal rule provide significant details about how the program will likely work. In short, eligible RE or EE projects will receive early-action credits for renewable energy they produce or energy they save during the years 2020 and 2021. These credits can then be transferred (traded) to affected electrical generating units (EGUs) and used by those EGU's for compliance during the 2022-2030 CPP compliance period.

Focus on the hard-to-reach low income housing sector

An important reason cited by the EPA for providing the CEIP is to "help ensure that the benefits of the final rule are shared broadly across society and that potential adverse impacts on low-income ratepayers are avoided."[11] EPA rightfully states that there have been "historic economic, logistical, and information barriers" to implementing demand-side EE programs in low-income communities. These barriers have increased the costs and restricted the availability of such programs.

The CEIP will best serve low income communities if it is focused on directly improving efficiency in the spaces where people spend most of their time: **housing**. These efficiency improvements will also improve health, comfort and safety. We suggest that LA DEQ not generally open the CEIP to any energy efficiency project that occurs in low income areas. For example, if industrial efficiency projects in such areas qualify for the CEIP, there is a substantial risk that CEIP program investments would be directed at the industrial sector, diverting money and attention from the low income housing sector.

Low income households and building owners face a multitude of barriers when making efficiency investments including: "split incentives" and the need for upfront financing to pay for upgrades. Where renters pay energy bills but owners make investments in durable equipment in the building, neither party can fully capture the benefit of an investment in energy efficiency, leading to the split incentive. Since these tenants are more likely to move, they have less incentive to spend their own money on efficiency since they will not enjoy the benefits of long-lived investments. Low income households, including most renters, have little surplus in their budget to pay for the upfront cost of energy efficiency upgrades. The upfront cost of efficiency investments are particularly acute for renters in multifamily buildings, where close to 50 percent of our nation's low-income renters live[12].

The Multifamily housing sector is of particular concern as an untapped savings resource. The per-unit annual payback on investment (APOI) for multifamily energy-efficiency retrofits is actually better than that for single-family homes. Despite this potential, multifamily rental housing (representing roughly 15%[13] of total Louisiana housing) has been generally underserved by existing utility-sponsored energy efficiency programs. However, multifamily housing offers the advantage of economies of scale not available in single-family homes. It is easier to coordinate retrofits for multiple units that are contiguous and a single intervention, such as an HVAC replacement, can improve efficiency in every unit in the building. **By investing more resources into the multifamily sector, Louisiana can scale up energy**

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[10] **RE Project Eligibility**: projects are eligible for credit under the CEIP if they: Are located in or benefit the state that submitted the final plan; Commence construction after the submission of final state plan (likely Sept. 2018 for GA) ; and Generate metered megawatt-hours (MWh) from any type of wind or solar resource in 2020 and 2021.

[11] 80 FR 648311

[12] http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/jchs_americas_rental_housing_2013_1_0.pdf.

[13] Here multifamily housing stock includes properties with three (3) or more units within a portfolio.

efficiency programs much more rapidly than previously imagined, enabling real energy savings quickly and at lower cost to compliance.

However, while the program should focus on the low income housing sector, project developers should not have to verify the income of every household that benefits from the program. If a sufficient percentage of people in a community are low income, then all residential energy efficiency projects that occur in that community should be eligible. Projects that occur outside of defined low income communities but primarily and directly benefit low income people should also be eligible.

Definitions of project eligibility should use income-based primary definitions, supplemented with secondary definitions that use definitions from existing federal programs to identify low income people or institutions that serve them.

We propose an "either/or" definition of project eligibility. Eligible projects are:

- residential energy efficiency in defined geographies, designed to capture communities of concentrated poverty, or

- projects and programs inside or outside of these defined geographies, which directly and primarily benefit low income people, in the housing, school, municipal, and healthcare sectors

For the geographic definition, we propose that a low income community be defined as a census tract with poverty rates of 40 percent or more, or, alternatively a census tract where 40 percent or more of the households earn less than HUD's very low income limit for the appropriate jurisdiction.

Outside of these geographically defined low income communities, eligibility criteria would be sector-specific:

For **single-family**, the following would be eligible:

1. projects in houses whose rents are affordable (no more than 30 percent of income) to low income tenants, using HUD's low income limits for the relevant geography
2. projects in houses where residents earn no more than HUD's low income limit for the relevant geography
3. projects in houses whose residents or owners already qualify or participate in federal affordable housing programs, including the Housing Choice Voucher Program, Section 521 Rural Rental Assistance Program, Section 502 Direct Loan Program, Single Family Housing Guaranteed Loan Program, Weatherization Assistance Program, Low-Income Housing Tax Credit, and Low Income Heating Assistance Program
4. electric utility, state, or third-party administered programs where 80 percent of the participants earn less than HUD's low income limit, or where 80 percent of the participants qualify or participate in the above-listed programs

For **multi-family**, the following would be eligible:

1. projects in buildings whose rents are affordable (no more than 30 percent of income) to low income tenants, using HUD's low income limits for the relevant geography
2. projects in buildings that already qualify or participate in federal affordable housing programs, including the Section 8 Project-based Rental Assistance Program, Section 202 Supportive Housing for the Elderly Program, Section 811 Supportive Housing for Persons with Disabilities Program, Section 521 Rural Rental Assistance Program, Section 515 Rural Rental Housing Loans

program, the Weatherization Assistance Program, homeless assistance programs administered by HUD, and Low-Income Housing Tax Credit

3. electric utility, state, or third-party administered programs where 80 percent of the participants earn less that HUD's low income limit, or where 80 percent of participants qualify or participate in the Housing Choice Voucher Program, the Low Income Heating Assistance Program, or the above-listed programs

LA DEQ should also examine project development strategies that bundle retrofits across sectors, like BlocPower[14]. BlocPower works with community leaders and institutions to assemble four or more buildings in financially underserved communities into a "block" of potential retrofits. This method increases project size, spreading performance risk and reducing costs. This method could increase the attractiveness of energy efficiency projects in low income housing, by bundling these projects with more cost-effective municipal, school, or hospital projects.

Retrofitting a municipal building, school, or hospital that serves primarily low income people can provide indirect benefits: lower operating costs could be reinvested into programs that benefit these customers. Because this sector is generally more easily served by energy efficiency programs and the ESCO industry than low income housing, LA DEQ should ensure that these projects do not absorb a large portion of the potential CEIP credits. LA DEQ can do this by; a.) limiting the portion of the energy efficiency pool that can be taken by such projects, or b.) requiring a share of the total energy savings from such projects to come from residential efficiency.

While the EPA is still finalizing the specific procedures and rules of the CEIP, the final CPP and the proposed federal rule provide significant details about how the program will likely work. In short, eligible RE or EE projects will receive early-action credits for renewable energy they produce or energy they save during the years 2020 and 2021. These credits can then be transferred (traded) to affected electrical generating units (EGUs) and used by those EGU's for compliance during the 2022-2030 CPP compliance period.

Form of the Early-Action Credits: the form of the early-action credits earned by a CEIP-eligible project depends on what type of compliance approach the state chooses.

- Mass-based – under a mass-based plan, the credits will be in the form of allowances to emit one ton of CO_2. Each state "creates" one allowance for every ton of CO_2 that affected EGUs are permitted to emit during the compliance period. The total allowances available under a state plan represent the state's emissions budget over the compliance period. Each affected unit in the state must retire an allowance for every ton of carbon it emits during the compliance period. States may allocate[15] these allowances directly to the affected EGUs and/or another entity(ies), dependent upon the state allocation methodology selected. Louisiana should avoid, a free allocation based on various historic EGU performance characteristics, such as electrical output, heat input or emissions as these would fail to capture the economic value of the allowances.

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[14] www.blocpower.org

[15] Allocating allowances to affected EGUs may be done in several ways, including an auction or output based allocation scheme. **Additionally, states can set-aside allowances prior to allocation for particular purposes, such as participating in the CEIP,** supporting RE or combating "leakage" to new units. Each decision has important public policy implications.

- Rate-based – under a rate-based plan, the credits will be in the form of Emission Rate Credits (ERCs). Each ERC will represent one MWh of "clean energy." Each affected unit can use ERCs to adjust its emission rate (by adding that MWh to the denominator of its emission rate) to meet its required rate.

Allocating CPP Allowances and CEIP Set Aside

LA DEQ has a number of options for allocating CPP allowances - which represent permits to pollute and thus have an economic value to Electric Generating Units (EGUs) or power plants. How allowances are distributed is an important influence in incentivizing energy efficiency in affordable housing. Giving away allowances based on historic emissions ***rewards*** **the dirtiest generators and penalizes cleaner ones and would amount to a windfall for EGUs** since more pollution means more allowances received for free.

LA DEQ should ensure to capture the economic value of those emissions permits for public good, including:

a.) Incentivizing efficiency and renewable energy generation,

b.) Funding climate change mitigation, adaptation and resiliency programs,

c.) Protecting against environmental justice impacts or regional economic development in regions adversely affected by economic impacts of declining fossil fuel use.

There are three potential options for capturing the value of these allowances for public benefit:

1. Auction the allowances directly
2. Auction the allowances through Electric Distribution Companies
3. Distribute allowances based on the verified output from energy efficiency savings

All carbon allowances have a dollar value – regardless of whether auctioned or given freely. The question before policy makers is simple: will that dollar value be recovered and reinvested for consumer benefit, or passed on to generators as a windfall profit? By capturing the value of allowances, LA DEQ would generate hundreds of millions of dollars to advance the interest of the public over the life cycle of the CPP compliance process. The chart below shows what Louisiana can generate through a fair pricing of allowances in two year increments at prices of $6/$10/$15 per ton. By comparison, the state of California auctions its allowances at a price just above $12 per ton whereas most market analyst would put the true price closer to $22 per ton.

Total Average Value of Allowances in Louisiana ($ Million)				
Allowance value	**2022-2024**	**2025-2027**	**2028-2029**	**2030**
$6	$253	$235	$223	$215
$10	$422	$391	$371	$359
$15	$634	$587	$557	$538

CEIP Allowance Set Aside

Louisiana is eligible to receive as much as, 1,497,428 short tons of annual allowance set asides for implementing CEIP and a three year total of, 4,492,283 short tons. Proposing a 50/50 split of the total number of allowances between energy efficiency and renewable energy projects, Louisiana would have approximately 2,246,142 short tons of energy efficiency allowances available under CEIP. If traded at a value of $4 a ton, these allowances would equal a total economic value to Louisiana consumers of, $17,969,134. In addition, a potential study by the Energy Efficiency for All Coalition found that the economic benefits of investments in energy efficiency were found to be in the ballpark of $3.00 for every $1.00 invested in AMF sector alone.

CLOSING CONSIDERATIONS AND NEXT STEPS

The CEIP offers an important opportunity for Louisiana. It can provide the state with a low cost compliance option while providing meaningful help to the state's poorest electricity customers and stimulating the development of new energy efficiency projects and technologies. LA DEQ should work with the state PSC, LA Housing Corporation, local utilities, and other stakeholders to refine its approach and develop a sound blue print for Louisiana's participation in the CEIP.

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